Abstract

Comparison between Robotic Assisted Total Laparoscopic Hysterectomies with Conventional Total Laparoscopic Hysterectomies in Sarawak General Hospital

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Objective:
To review the outcomes of robotic assisted total laparoscopic hysterectomies in comparison to conventional total laparoscopic hysterectomies performed in Sarawak General Hospital.

Methodology:
This was a restrospective cohort study. All patients who had a Robotic assisted total laparoscopic hysterectomy (Robotic) and conventional total laparoscopic hysterectomy (TLH) from 1st January 2009 till 30th June 2012 in SGH were included in this study. Hundred patients were included in this study, 33 patients had Robotic hysterectomy while 67 patients had TLH. Outcomes in term of intra-operative events, post-operative complications and the surgeon's learning curve were reviewed. The surgeon's perception on Robotic surgeries was evaluated using a standardized questionnaire.

Results:
Mean operative time was shorter in Robotic surgery (180.45± 58.80 minutes) as compared with TLH surgery (181.63 ± 58.79 minutes) with a p value of 0.93. There were no significant differences in blood loss in between these two groups. Similarly, median post-operative length of hospital stay was shorter in Robotic surgery 1.72 (1.09-1.87) days compared to TLH surgery 1.85 (1.67-2.86) days with a significant p value of 0.02. There were positive correlation in between body mass index (BMI) and uterine weight with surgical time in Robotic surgery. TLH surgery was associated with higher intra-operative and post-operative complications apart from a higher conversion rate to a laparotomy (7.46%) as compared to Robotic surgery (3.03%). There were no significant differences in learning curve for Robotic surgery but the surgeons preferred it as compared to TLH surgery due to wider range of motions, better magnifications and ergonomics as an added advantage.

Conclusion:
These results strengthens the fact that Robotic surgeries are safe, has a shorter learning curve with an added advantage for complex surgeries and improved operative ergonomics. Cost-effectiveness remains the most important limiting factor.